

### **ABSTRACT**

A method and apparatus to improve modulation efficiency for chip to chip interconnects. Modulation objects that are integer multiples of a fundamental time unit (FTU) are used to populate a symbol period that is also an integer multiple of the FTU. A possible symbol set is established as the set in which the modulation object occupies every possible combination of slots within the symbol period. By permitting the modulation object to overlap positions in different symbols of the set, greater modulation efficiency is achieved.